

DMSO Update

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ASNE MSEA Internal Review

27 Aug 2003

Why M&S Management and DMSO?

The DoD M&S Management Structure and DMSO were established as the result of Congressional initiative to overcome Service and “functional* stovepiping.”

“... establish an Office of the Secretary of Defense level joint program office for simulation to coordinate simulation policy, to establish interoperability standards and protocols, to promote simulation within the military departments and to establish guidelines and objectives for [the] coordination [of] simulation, wargaming and training....” (SAC, SR101-521)

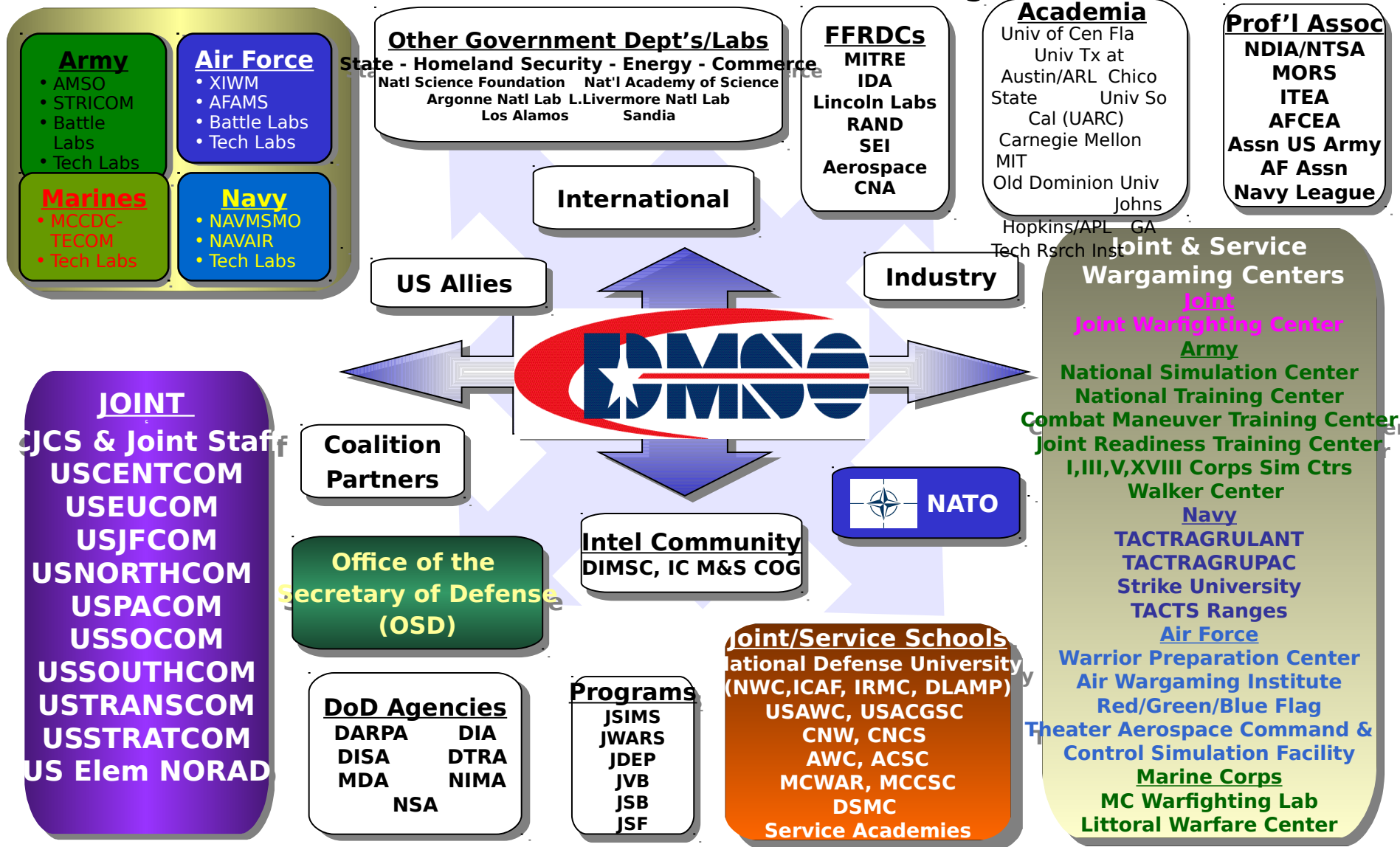
“... initiate the joint office and support the required studies and technical efforts to develop interoperability standards and protocols for existing and future war games, models, simulators, and training devices ...” (HASC/SASC Conference Report, 1991)

Modeling and Simulation is a key enabler to Transformation (SECDEF Transformation Planning Guidance, Apr 2003)

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Acquisition, Analysis, Experimentation, Training, Operations, etc.

The Arena (M&S Community)



DMSO Reporting Chain

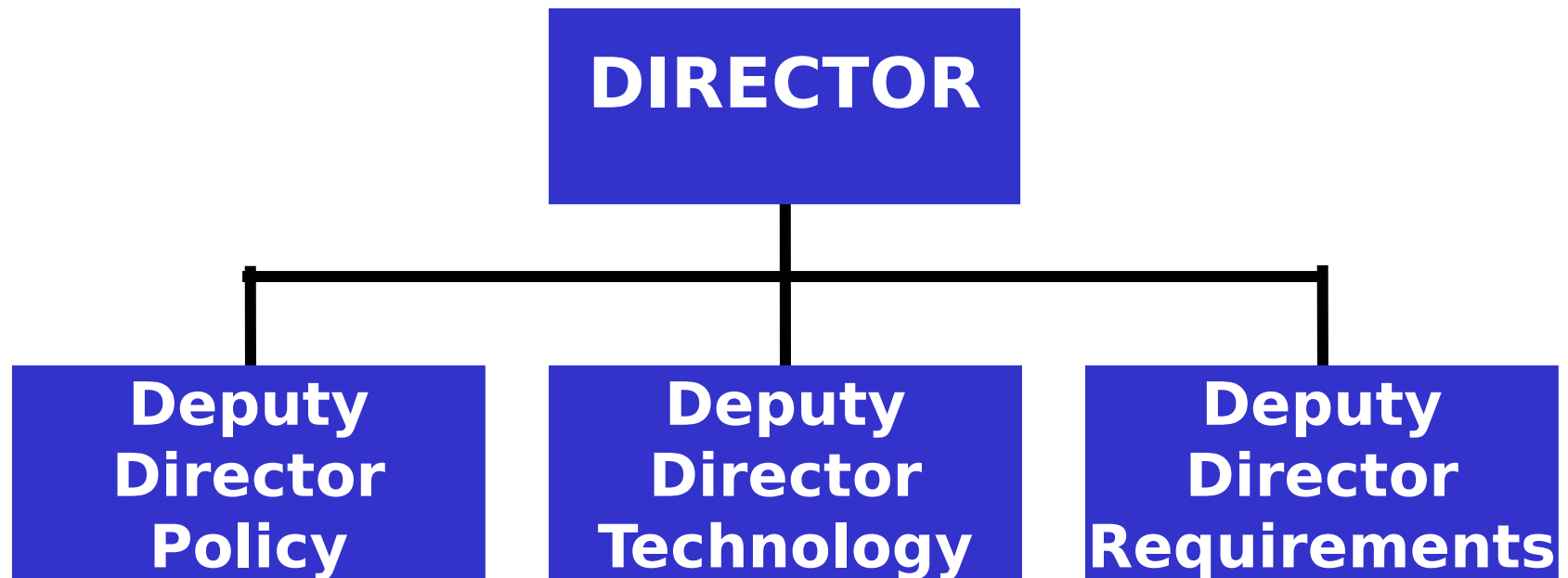
**Acting Under Secretary of Defense (Acquisition,
Technology & Logistics) (USD(AT&L))
Mr. Michael W. Wynne**

**Director, Defense Research & Engineering
(DDR&E)
Dr. Ronald M. Sega**

**Deputy Under Secretary of Defense (Science &
Technology) (DUSD(S&T))
Dr. Charles J. Holland**

**Director, Defense Modeling & Simulation Office
(DMSO)
Col Michael L. Finnern, USAF**

DMSO Organization



Foundation Document for DoD M&S: DoD Directive

5000.59, "DoD Modeling and Simulation

• Approved by Dept (M&S) Management (1)

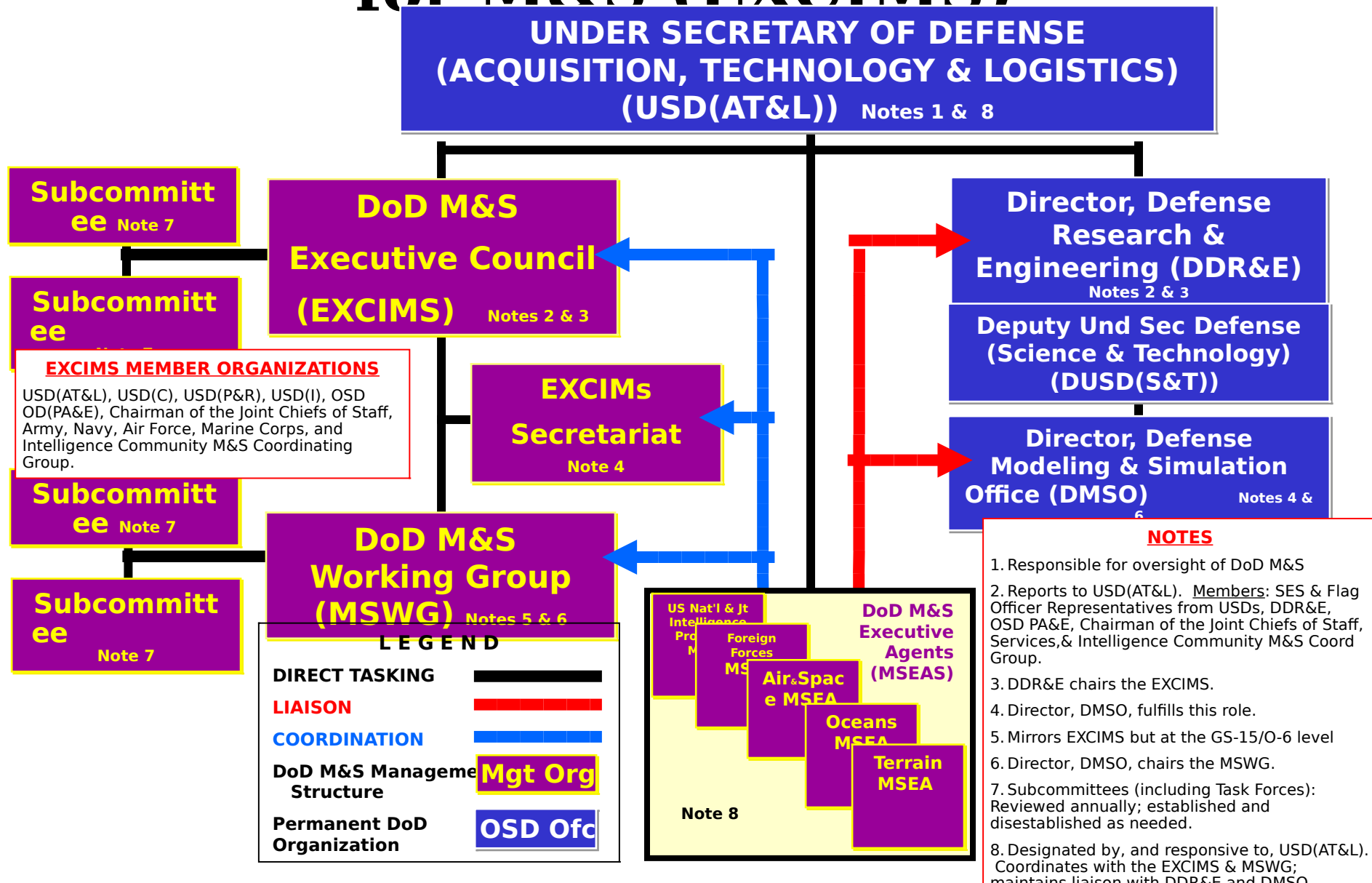
• ESTABLISHED:

- DoD Executive Council for Modeling and Simulation (EXCIMS)**
- Defense Modeling and Simulation Office (DMSO)**
- M&S Management and Administrative Structure for improving M&S**

• KEY POLICIES:

- Required development of DoD and DoD Component M&S Master and Investment Plans**
- Open system architecture and interoperability requirements**
- Provided for establishment of DoD M&S Executive Agents**
- Required DoD Components to establish Validation, Verification and Accreditation (VV&A) policies and procedures**
- Made DoD Components final authority for representations of their forces and capabilities in joint and common use (e.g.,**

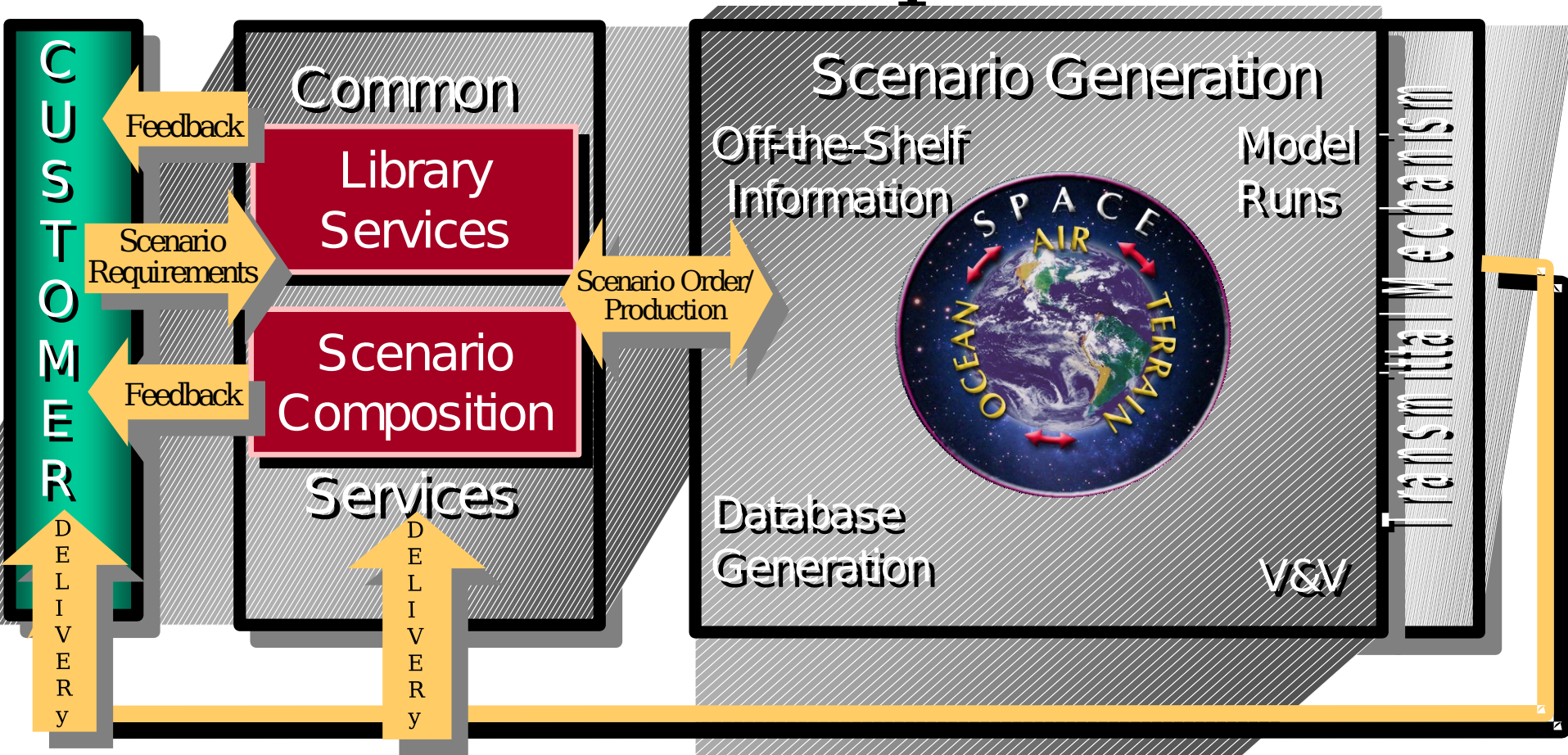
DoD M&S Management Structure: Executive Council for M&S (EXCIMS)



ASNE MSEA Relationship to DMSO

- Designation letter calls for liaison with DMSO
- Initially (FY96 and 97) dependent for all funding
- DMSO funded ACMES and transitioned it to AFCCC in FY99
- DMSO funded other projects as well
- ASNE manages the Environmental Scenario Generator project for DMSO (FY98-00; 03-pres)
- DoD MSEAs and DMSO developed the Integrated Natural Environment Authoritative Representation Process (INEARP) CONOPS

INERP Overall Concept



An infrastructure of common services, scenario generation capabilities, and interchange mechanisms can be specified to produce timely integrated authoritative representations of the physical

Words from DoD 5000.59-P

“Models of military operations depend on interaction with representations of the natural environment ...This requires authoritative three-dimensional representations of the terrain, oceans, atmosphere, and space. These representations are complex in design and require significant funds and time to build. Therefore, the complexity should be commensurate with the simulation’s functional requirement for detail given the scope of what is being modeled. Additionally, environmental representations must be seamless in terrain, ocean, atmosphere, and space boundary regions to present fully integrated data for M&S use. ... Because resource constraints prevent having current world-wide representations available off-the-shelf, a suitable, cost-effective process must be established to provide “just-in-time” production of these representations.”
(p. 4-9)

FY04 DMSO Budget Issue

- Additional Mission to provide tools and capability for analytical capability within AT&L has fiscal impact
 - Defense Systems (component of AT&L) and DDR&E to provide analytical capability with 56% of DMSO funds for Technology Program
 - Another 16% allocated for S&T Simulation Initiatives
 - Leaves 28% for DMSO to transition mature technologies from current program with no funds remaining for other development like ESG
- Actions being taken to address the issue
 - ASNE has been working with OSD/PA&E (JWARS Program Office) to ensure their support of ESG/INEARP is made known
 - JWARS Program Director has communicated with DMSO Director
 - OSD/PA&E has asked for presentation of the DMSO FY04 budget at the 29 Sep EXCIMS meeting

Other Topics

- M&S Strategic Plan
- EXCIMS – 29 Sep (first since 02/2001)
- Environmental Representation Task Force
- Meeting between AF/XOW and DMSO Director prior to EXCIMS
- DoDD 5101.1, DoD Executive Agent

DoDD 5101.1 (3 Sep 2002)

- Only SECDEF or DEPSECDEF can designate a DoD Executive Agent and assign responsibilities
 - Grandfathers existing designations like ASNE MSEA
- Within scope of assigned responsibilities, EA's authority takes precedence over that of DoD components performing related responsibilities
- EA assignments to be identified in a DoD issuance that
 - Identifies responsibilities, functions, relationships, and authorities; funding and other resource arrangements, which must be identified separately and be visible within the DoD budget
 - Specifies other DoD components that provide support to EA
- OSD Principal Staff Assistants (e.g., USDs, DDR&E, ASDs) shall oversee activities of DoD EAs in their functional areas
- Bottomline: DoD MSEAs may want to consider developing a DoD issuance of their own under the authority of this directive

Backup Slides

MSEAs' Mission

“Enable M&S developers and users to represent the natural environment rapidly, thoroughly, and consistently in a manner that promotes cost-effectiveness, ready access, interoperability, re-use, and confidence.”

Foundation Document for DoD M&S: DoD Directive

RESPONSIBILITIES: 5000.59 ⁽²⁾

- **USD(AT&L)** responsible for
 - "Strengthening the uses of M&S" in DoD
 - Establishing the EXCIMS and DMSO
 - Designating **DDR&E** to Chair the EXCIMS
 - DoD M&S policies, plans, and programs in coordination with DoD Components
 - Publishing the DoD M&S Master and Investment Plans in coordination with DoD Components

Foundation Document for DoD M&S: DoD Directive

• Responsibilities (CONT.): 5000.59⁽³⁾

• **DoD Components** responsible for:

- Ensuring representation on the DoD EXCIMS and designating a single Point of Contact for M&S
- Developing policies, plans, and programs to carry out M&S responsibilities according to their priorities
- Publishing their own M&S Master and Investment Plans
- Providing life cycle management of their M&S applications, standards, and databases
- Establishing procedures for joint and

DoD Directive 5000.59-- Foundation Document for DoD M&S⁽⁴⁾

•DoD Components (CONT.)

- Assuming responsibility for managing DoD common- or general-use M&S applications [domains] if designated as DoD MSEA
- Establish their own policies and procedures for Verification, Validation and Accreditation of their own M&S
- Be the final authority for validating and accrediting representations of its own forces and capabilities in joint and common use M&S.

Foundation Document for DoD M&S: Charter for the DoD EXCIMS

- **Originally Attachment 3 to Draft DoD Directive 5000.59 - removed because EXCIMS was established and operating before Directive was approved**
- **Approved by Acting USD(A) at the October 1991 EXCIMS Meeting**
- **Functions "captured" in DoDD 5000.59, but some key details omitted:**
 - **EXCIMS Required to meet twice annually**
 - **Specified membership by organization**
 - **Specified management and administrative details for formation of subcommittees**

DoD EXCIMS Functions

DoD Directive 5000.59 and the EXCIMS Charter define these functions:

- 1. Advise and assist the USD(AT&L) in strengthening DoD M&S uses**
- 2. Oversee development of DoD M&S policies, plans and programs**
- 3. Encourage coordination and communication among DoD M&S activities**
- 4. Identify M&S investments with high-value return in meeting requirements and filling gaps in DoD M&S capabilities**
- 5. Promote joint and cooperative research, development, acquisition and operation of DoD M&S systems, technologies and capabilities**
- 6. Recommend DoD M&S Objectives and investments**
- 7. Recommend designation of DoD MSEAs**

DoD EXCIMS Members

(as of 8-12-2003)

DoD Component/ Principal Staff Asst	Name	Title
DDR&E(Chair)	Hon. Dr. Ronald M. Sega	Director, Defense Research & Engineering/EXCIMS Chair
Deputy DDR&E	Dr. John H. Hopps, Jr.	Deputy DDR&E and DUSD(Laboratories & Basic Sciences)
USD(AT&L)	<i>Vacant</i>	<i>DUSD(Industrial Policy) To Be Determined</i>
USD(AT&L)	Dr. Vitalij Garber	Director, Systems Integration
USD(C)	<i>Vacant</i>	<i>To Be Determined</i>
USD(P&R)	Mr. Daniel E. Gardner	Director, Readiness & Training
USD(I)	Mr. Owen Wormser	Principal Deputy, S3C3, OASD(NI2)
Dir(PA&E)	Mr. Eric J. Coulter	Dep Dir for Theater Assessments & Planning
Chairman, Joint Chiefs of Staff	Ms. Lisa S. Disbrow	J-8, Deputy Director, Wargaming, Simulation & Analysis
Army	Mr. Walter W. Hollis	Deputy Under Secretary of the Army (Opns Research)

The DoD M&S Vision

Defense modeling and simulation will provide **readily available, operationally valid** environments for use by DoD components:

- To train jointly, develop doctrine and tactics, formulate operational plans, and assess war fighting situations.
- To support technology assessment, system upgrade, prototype and full scale development, and force structuring.

Furthermore, **common use** of these environments will promote a closer interaction between the operations and acquisition communities in carrying out their respective responsibilities. **To allow maximum utility and flexibility,**

Approved by the USD (A&T) March 13, 1992

**Reaffirmed by the DoD Executive Council for Modeling and Simulation (EXCIMS),
May, 1999**

AF/XI Organization

